

Notice of Allowability

Application No.

09/977,426

Examiner

Leonard R. Leo

Applicant(s)

SAITO ET AL.

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on September 19, 2005.
2. ☒ The allowed claim(s) is/are 14, 19 and 24.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Christopher D. Ward on November 28, 2005.

The application has been amended as follows:

14. (Currently Amended) A two-block heat exchanger including plate shaped refrigerant distribution parts comprising two overlapped plates that have been drawing processed and between which two separate refrigerant paths are formed, said distribution parts being alternatively layered with a refrigerant fin, at least one opening that opens into said refrigerant paths being respectively formed in each two plates of said refrigerant distribution parts, wherein:

said opening is provided at both respective ends of said refrigerant paths forming thereby, for each of said refrigerant paths of each of said distribution part, a refrigerant entrance and a refrigerant exit, a continuous refrigerant circulation space being formed by abutting said refrigerant entrances at the entrance side of respective refrigerant paths and a continuous refrigerant circulation space being formed by abutting said refrigerant exits at the exit side of respective refrigerant paths, and

one end of each of said refrigerant circulating spaces is closed off and the other end is opened, the open end of said refrigerant circulation space at the exit side of one of said

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refrigerant paths being corrected to the open end of said refrigerant circulation space at the entrance side of said other refrigerant path,

further comprising, in at least one of said refrigerant circulation spaces at the entrance side of said refrigerant paths, ~~a refrigerant distribution means that adjusts the amount of refrigerant supplied to said refrigerant path, wherein said refrigerant distribution means is formed~~ by a baffle plate formed at the end of at least one of said two plates around said openings in order to prevent that all the refrigerant present in the refrigerant entrance positioned upstream said baffle plate flows into the refrigerant entrance positioned downstream said baffle plate,

~~wherein said refrigerant distribution means is further formed by the fact that each of said openings of said baffle plate ~~plates~~ is larger than the corresponding opening of the an adjacent baffle plate ~~plates~~ in the direction of flow of the refrigerant and by the fact that each of said openings of said baffle plate ~~plates~~ is disposed so as not to completely overlap the corresponding opening of the adjacent baffle plate ~~plates~~, and~~

~~wherein said openings of said baffle plates are concentrically aligned.~~

19. (Previously Presented) The heat exchanger according to claim 14, wherein the refrigerant entrance of said one refrigerant path is provided adjacent to the refrigerant exit of said other refrigerant path and wherein a communicating path connects said open end of said refrigerant circulation space at the exit side of said one refrigerant path to the open end of said refrigerant circulation space at the entrance side of said other refrigerant path.

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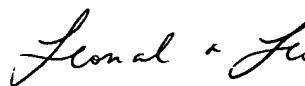
24. (Previously Presented) The heat exchanger according to claim 14, wherein the refrigerant entrance of said one refrigerant path is provided adjacent to the refrigerant entrance of said other refrigerant path and wherein a communicating path connects said open end of said refrigerant circulation space at the exit side of said one refrigerant path to the open end of said refrigerant circulation space at the entrance side of said other refrigerant path.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3753

November 28, 2005